

Even More Graphing

Name: _____

A student adds one alka-seltzer tablet to a beaker and measures the amount of time needed for the tablet to dissolve. The experiment is then repeated several times. Each time the number of alka-seltzer tablets is increased. The data is shown below.

Number of Tablets	Time (s)
1	15
2	28
4	63
6	91
8	124

- Which variable is the independent variable and which is the dependent variable?
 - Independent variable = _____
 - Dependent variable = _____
- There are 20 blocks along each of the axes. Decide on a scale and sketch it in with pencil. Then ask your teacher if your scale is correct before you plot your points.
- Plot your points.
- Sketch in a "best fit" line for the points. Check with your teacher before continuing.
- What is the Y-intercept for the line that you just drew? _____
(Be sure to include a unit with your answer.)
- Explain the MEANING of the Y-intercept for this graph.
- What is the slope of this graph? Be sure to show your work. Include a unit with your answer.
$$\text{slope} = \frac{\text{Rise}}{\text{Run}} \quad \text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$$
- Explain the MEANING of the slope of the graph. Your answer MUST include numbers in the explanation.

